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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,804	12/21/2000	Robert Curley	2452-17	6420

7590 05/20/2004  
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275 TURNPIKE STREET  
SUITE 101  
CANTON, MA 02021-2310

EXAMINER

YUSSUF, SAJID

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 05/20/2004

10

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/740,804

Examiner

Sajid A Yussuf

Applicant(s)

CURLEY ET AL.

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12/20/2000-11/18/2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/1/18/2002</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Specification***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. ***Claim(s) 1, 3-14, 15-27, 29-35 is/are rejected under 35 U.S.C. 102(e) as being anticipated by Pruthi et al. (US Patent Application Publication No. 2002/0105911 and Pruthi hereinafter)***

5. As per claim(s) 1 Pruthi discloses monitoring particular characteristics of transaction-based protocol exchanges to and/or from said node, (See Paragraph 0002); and deriving round-trip network latency in response to said monitoring, (See Paragraph 0033).

6. As per claim(s) 3 Pruthi teaches the claimed invention as described in claim(s) 1 above and furthermore discloses monitoring TCP data packet acknowledgment; wherein TCP resides under the

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transport layer under the ISO/OSI layer thus residing between the application layer and data link layer, (See Paragraph 0033).

7. As per claim(s) 4 Pruthi teaches the claimed invention as described in claim(s) 1-3 above and furthermore discloses monitoring TCP slow start turnaround; wherein interpreted as round trip delay, (See Paragraph 0033).

8. As per claim(s) 5 Pruthi teaches the claimed invention as described in claim(s) 1-4 above and furthermore discloses monitoring TCP zero to non-zero window turnaround; wherein interpreted as round trip delay, (See Paragraph 0033).

9. As per claim(s) 6 Pruthi teaches the claimed invention as described in claim(s) 1-5 above and furthermore discloses monitoring TCP FIN bit acknowledgment, (See Paragraph 0067).

10. As per claim(s) 7 Pruthi teaches the claimed invention as described in claim(s) 1-6 above and furthermore discloses deriving and subtracting delays associated with processing by a further node communicating over the network with said first-mentioned node; wherein it is inherent to subtract delay of any sort in order to achieve best round trip times (See Paragraph 0062-0063).

11. As per claim(s) 8 Pruthi teaches the claimed invention as described in claim(s) 1-7 above and furthermore discloses monitoring and deriving steps are performed at a plurality of network sites remote from said node, or co-located with said node; wherein the monitoring agent is located in between the server and client and therefore interpreted as being located remotely, (See Paragraph 0062).

12. As per claim(s) 9 Pruthi teaches the claimed invention as described in claim(s) 1-8 above and furthermore discloses reporting said derived results, (See Paragraph 0052).

13. As per claim(s) 10 Pruthi teaches the claimed invention as described in claim(s) 1-9 above and furthermore discloses reporting step comprises generating a web page, (i.e., generated online), (See Paragraph 0133).

14. As per claim(s) 11 Pruthi teaches the claimed invention as described in claim(s) 1-10 above and furthermore discloses providing a web-page-based report over said network, (i.e., generated online), (See Paragraph 0133).

15. As per claim(s) 12 Pruthi teaches the claimed invention as described in claim(s) 1-11 above and furthermore discloses monitoring and deriving steps are performed on a subscription basis; wherein selecting a hyperlink is interpreted as subscribing to access monitoring data, (See Paragraph 0132).

16. As per claim(s) 13 Pruthi teaches the claimed invention as described in claim(s) 1-12 above and furthermore discloses coupling a monitoring node to said network and operating the monitoring node in a promiscuous mode, (See Paragraph 0035).

17. As per claim(s) 14 Pruthi teaches the claimed invention as described in claim(s) 1-13 above and furthermore discloses monitoring transaction-based protocol traffic and breaking down response time into a plurality of different components including round-trip network latency, (See Paragraph 0033).

18. As per claim(s) 15 Pruthi discloses initiating a monitoring subscription over the Internet, including obtaining at least one network address to be monitored, (See Paragraph 0002); remotely monitoring, over said network, transactions involving said network address, (See Paragraph 0062); and deriving network latency and device latency in response to said monitoring, (See Paragraph 0033).

19. As per claim(s) 16 Pruthi discloses a receiver coupled to a network, said receiver receiving requests and responses from at least one node located remotely from said receiver on the network; a protocol analyzer coupled to said receiver, said protocol analyzer isolating, (See Paragraphs 0060-0064).

20. As per claim(s) 17 Pruthi discloses monitoring HTTP traffic flowing between a web server and a web client: and using the web server's initial HTTP reply packet as the logical dividing line for the web client to web server HTTP packet exchange, (See Paragraph 0131), wherein said logical dividing line is used to distinguish initial web server reply time from network transport time, (See Paragraph 0122-0131).

21. As per claim(s) 18 Pruthi teaches the claimed invention as described in claim(s) 17 above and furthermore discloses the time spent from a first HTTP data packet until a last HTTP data packet for a transaction has arrived from the web server, (See Paragraph 0122-0131).

22. As per claim(s) 19 Pruthi discloses monitoring TCP traffic between a server and client; and using IP Header sequence number to help distinguish out-of-order TCP packets from retransmitted TCP data packets each carrying HTTP data, (See Paragraph 0047).

23. As per claim(s) 20 Pruthi discloses monitoring TCP traffic between a server and client and using an initial exchange between said server and said client and TCP header flags to determine whether an initial HTTP reply is retransmitted, (See Paragraph 0120-0132).

24. As per claim(s) 21 Pruthi teaches the claimed invention as described in claim(s) 20 above and furthermore discloses using retransmission time as time to discount when calculating web server processing time, (See Paragraph 0041-0050).

25. As per claim(s) 22 Pruthi teaches the claimed invention as described in claim(s) 20-21 above and furthermore discloses using retransmission time as time to discount when calculating TCP connect processing time, (See Paragraph 0041-0050).

26. As per claim(s) 23 Pruthi teaches the claimed invention as described in claim(s) 20-22 above and furthermore discloses continually calculating transport-to-transport network latency to obtain minimum network latency for at least one TCP session, (See Paragraph 0059-0066).

27. As per claim(s) 24 Pruthi teaches the claimed invention as described in claim(s) 20-23 above and furthermore discloses using round trip network latency as time to discount when calculating web server processing time, (See Paragraph 0127).

28. As per claim(s) 25 Pruthi teaches the claimed invention as described in claim(s) 20-24 above and furthermore discloses using round-trip network latency as time to discount when calculating TCP connect processing time, (See Paragraph 0122-0130).

29. As per claim(s) 26 Pruthi discloses monitoring protocol traffic between a client and a server over the network; continually calculating network retransmission time, (See Paragraph 0060-0063); and taking said calculated network retransmission time into account when computing web server processing time and TCP connect time and the number of packets lost, (See Paragraph 0064-0068).

30. 27: As per claim(s) 27 Pruthi discloses monitoring HTTP protocol traffic between a web client and a web server over a network, (See Paragraph 0131); and using an HTTP initial request and reply to determine if the content of at least one web page hosted by the web server is static or dynamic, (See Paragraph 0122-0131).

31. 29. As per claim(s) 29 Pruthi discloses monitoring particular characteristics of wireless transaction-based protocol exchanges to and/or from said node, (See Paragraph 0002); and deriving

round-trip network latency of said wireless network in response to said monitoring, (See Paragraph 0033).

32. 30. As per claim(s) 30 Pruthi teaches the claimed invention as described in claim(s) 29 above and furthermore discloses receiving requests and responses from at least one node located remotely from said receiver on the network; isolating features of received requests and responses and logging times associated with each; and calculating, in response to said logging, latency associated with said network and latency associated with said node, (See Paragraph 0073-0078).

33. 31. As per claim(s) 31 Pruthi teaches the claimed invention as described in claim(s) 29-30 above and furthermore discloses monitoring HTTP traffic flowing between a web server and web client over the wireless network, (See Paragraph 0131); and using the web server's initial HTTP reply packet as the logical dividing line for web client to web server HTTP packet exchange, wherein said logical dividing line is used to distinguish initial web server reply time from wireless network transport time, (See Paragraph 0122-0131).

34. 32. As per claim(s) 32 Pruthi teaches the claimed invention as described in claim(s) 29-31 above and furthermore discloses the monitoring step includes using an IP header sequence number to help distinguish out-of-order TCP packets from retransmitted TCP data packets each carrying HTTP data, (See Paragraph 0047).

35. 33. As per claim(s) 33 Pruthi teaches the claimed invention as described in claim(s) 29-32 above and furthermore discloses monitoring step includes using an initial exchange between said server and said client and TCP header flags to determine whether an initial HTTP reply is retransmitted, (See Paragraph 0033 & 0129).

36. 34. As per claim(s) 34 Pruthi teaches the claimed invention as described in claim(s) 29-33 above and furthermore discloses continually calculating network retransmission time; and taking



said calculated network retransmission time into account when computing web server processing time and TCP connect time and the number of packets lost, (See Paragraph 0073-0082).

37. 35. As per claim(s) 35 Pruthi teaches the claimed invention as described in claim(s) 29-34 above and furthermore discloses using an HTTP initial request and reply to determine if the content of at least one web page hosted by the web server is static or dynamic, (See Paragraph 0134).

***Claim Rejections - 35 USC § 103***

38. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

39. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.  
Ascertaining the differences between the prior art and the claims at issue.  
Resolving the level of ordinary skill in the pertinent art.  
Considering objective evidence present in the application indicating obviousness or nonobviousness.

***40. Claims 2, 28, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pruthi et al. (US Patent Application Publication No. 2002/0105911 and Pruthi hereinafter) in view of Colby et al. (US Patent No. 6,449,647 and Colby hereinafter).***

41. As per claim 2 Pruthi discloses the claimed invention as described above.

However, Pruthi does not explicitly teach monitoring step includes monitoring SYN bit acknowledgment.

Colby teaches monitoring step includes monitoring SYN bit acknowledgment, (See Column 7 Lines 17-2).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify the teaching of Pruthi with the teachings of Colby to include monitoring step includes monitoring SYN bit acknowledgment with the motivation to provide for performing server selection, a server in the same continent as the client is preferred over servers in another continent. Trans-continental network links introduce delay and are frequently congested. The server selection process tends to avoid such trans-continental links and the bottlenecks they introduce, (See Colby Column 3 Line 65 through Column 4 Line 5).

42. As per claim(s) 28 Pruthi discloses monitoring communications between said web server and at least one client, (See Paragraph 0120-0130);

However, Pruthi does not explicitly teach discounting at least one retransmitted HTTP Get or HTTP Post request from said client as web server processing time.

Colby teaches discounting at least one retransmitted HTTP Get or HTTP Post request from said client as web server processing time (See Column 7 Lines 17-2).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify the teaching of Pruthi with the teachings of Colby to include discounting at least one retransmitted HTTP Get or HTTP Post request from said client as web server processing time with the motivation to provide for performing server selection, a server in the same continent as the client is preferred over servers in another continent. Trans-continental network links introduce delay and are frequently congested. The server selection process tends to avoid such trans-continental links and the bottlenecks they introduce, (See Colby Column 3 Line 65 through Column 4 Line 5).

43. As per claim(s) 36 Pruthi discloses the claimed invention as described above.

However, Pruthi does not explicitly teach discounting at least one retransmitted HTTP Get or HTTP Post request from said client as web server processing time.

Colby teaches discounting at least one retransmitted HTTP Get or HTTP Post request from said client as web server processing time, (See Column 7 Lines 17-2).

Therefore it would have been obvious to a person having ordinary skill in the art at the time of Applicant's invention to modify the teaching of Pruthi with the teachings of Colby to include discounting at least one retransmitted HTTP Get or HTTP Post request from said client as web server processing time with the motivation to provide for performing server selection, a server in the same continent as the client is preferred over servers in another continent. Trans-continental network links introduce delay and are frequently congested. The server selection process tends to avoid such trans-continental links and the bottlenecks they introduce, (See Colby Column 3 Line 65 through Column 4 Line 5).

#### **Conclusion**

44. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Law et al. (US Patent No. 6,330,602) discloses scalable we server and method of efficiently managing multiple servers;
- b. Link et al. (US Patent No. 6,012,096) discloses method and system for peer-to-peer network latency measurement; and
- c. Dunn et al. (US Patent No. 6,560,648) discloses method and apparatus for network latency performance measurement.

45. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sajid A Yussuf whose telephone number is (703) 305-8752. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM and Alternate Fridays.

46. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

47. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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Sajid Yussuf  
Patent Examiner  
Technology center 2100  
13 May 2004

A handwritten signature in black ink, appearing to read 'Sajid Yussuf', written over a horizontal line.A handwritten signature in black ink, appearing to read 'Rupal Dharia', written over a horizontal line.

RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER